

ABSTRACT OF THE DISCLOSURE

An angioplasty catheter comprises a catheter body having a balloon or other radially expandable shell at its distal end. A non-axial external structure is carried over the shell and scores a stenosed region in a blood vessel when the balloon is inflated therein. The catheter has an attachment structure disposed between the catheter body and the balloon to accommodate foreshortening and rotation of the external structure as the balloon is expanded. The external structure may be part of a helical cage structure which floats over the balloon.